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Title of Research *	National Institute of Health (NIH) National Institute of Allergy and Infectious Disease (NIAID) Funding for Antibacterial Resistance Studies: 2007 and 2009
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Introduction & Purpose *

The relationship between burden of disease and research funding is an important metric to consider when determining funding priorities that impact public health [Gross et al. 1999] . In 2005, approximately 18,650 people infected with one antibiotic resistant pathogen, methicillin-resistant *S. aureus*, died in the U.S. [Klevens et al. 2008] This exceeded the number of U.S. deaths due to HIV/AIDS. In 2008, the NIH awarded \$2.9 billion in research funding for HIV/AIDS.[NIH Research Portfolio Online Reporting Tools (RePORT) <http://projectreporter.nih.gov>]

We aimed to measure the amount of NIAID research funding for all antimicrobial resistance studies that target antibiotic resistant bacterial infections, particularly for ESCKAPE pathogens.

Experimental Design *

We searched the NIH NIAID RePORT for the terms “antibiotic resistance,” “antimicrobial resistance,” and “hospital-associated infection” for the fiscal years 2007 to 2009. We also searched the data that the website provided under “Antimicrobial resistance” for comparison. All grants funded by the NIAID were classified as either bacterial, viral, parasitic, fungal, prion, combination, or n/a (U or N-series grants).

Results *

Our results show that in 3 years, \$906,100,967 was granted for antimicrobial resistance research. Funding increased by 81 % from FY2007 to FY2008 and further increased by 22% from FY2008 to FY2009. The data from the NIH is consistent with the FY2008 to FY2009 increase (25%), HIV showing the most obvious increase. Total funding for bacterial pathogens has increased but the difference between non-bacterial is noticeable, both in amount and increasing rate. ESCKAPE pathogens were categorized and showed increases in all pathogens, *S. aureus* showing the most funding and greatest increase.

Conclusions *

Antibacterial resistance funding represents approximately one-half of all NIAID-funded antimicrobial resistance research. Given the current US and worldwide impact of antibacterial resistance, current funding is likely low compared to overall disease burden. Future estimates of increasing antibacterial resistance and lack of available new antibacterial agents in the pipeline suggest that funding in this area

will be a top priority.

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